

Fear of missing out and smartwatch purchase intentions



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ABSTRACT

This study investigates how perceived values among young consumers affect their intention to purchase smartwatches. Understanding the relationship between perceived values and purchase intention is essential for developing marketing strategies that effectively influence young consumers' decisions to buy smartwatches. This paper outlines a research design aimed at exploring how young consumers' perceived values impact their purchase intentions towards smartwatches, while also examining the moderating role of Fear of Missing Out (FOMO) in the relationship between consumer attitude and purchase intention. Data was collected through an online survey, with responses from 300 completed questionnaires analyzed using SPSS 27 and SmartPLS 4 statistical software. The findings indicate that hedonic or emotional value is more significant to young consumers than utilitarian or functional value. Additionally, FOMO serves as a moderator, affecting the link between consumer attitude and their intention to purchase smartwatches. These findings provide valuable insights for marketers and entrepreneurs aiming to create more effective marketing strategies to attract and engage young consumers.

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1. Introduction

Over the last several years, the wearable technology sector has witnessed remarkable expansion, with smartwatches emerging as one of the most prominent and innovative devices. These wearable gadgets seamlessly blend the functionality of traditional timepieces with advanced digital capabilities, including fitness tracking, notification systems, and health monitoring features. This convergence of technology and convenience has captivated the interest of young consumers worldwide, leading to a surge in purchase intentions (Dehghani and Kim, 2019). Younger consumers, particularly those in the millennial and Generation Z, tend to be more tech-savvy and eager to adopt the latest digital innovations (Kuerbis et al., 2017). They have grown up in an era where smartphones, tablets, and other smart devices have become an essential part of their daily lives (Hsu and Wang, 2019). This familiarity and comfort with new technology translate into a greater willingness to embrace and

incorporate smartwatches into their lifestyles (Chaffey and Ellis-Chadwick, 2022). Additionally, the desire to stay connected, monitor their health and fitness, and project a trendy, tech-forward image has made smartwatches increasingly appealing to younger generations, driving the surge in purchase intentions observed in this demographic. A study in the United States discovered that people with high levels of Fear of Missing Out (FOMO) were more likely to use wearable technology, such as smartwatches, to stay connected and informed (Elhai et al., 2020). Similarly, a study from South Korea found that young generations viewed smartwatches as a tool to reduce FOMO, offering immediate access to social and informational updates (Choi and Kim, 2016). In addition, comparative analyses of European and Asian populations have shown differences in smartwatch usage behavior, suggesting that sociocultural factors play an important role in shaping the relationship between FOMO and wearable technology use. FOMO increases purchase intention, especially when strong social ties are involved, moderated by the type of experience. Moreover, in the fashion and beauty industries, FOMO has had a strong impact on consumer purchasing behavior (Solaiman and Pangaribuan 2024). However, research on live streaming platforms shows that FOMO significantly increases consumer purchasing behavior (Cui et al., 2024). FOMO could be an antecedent of increased

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digital technology usage, such as smartphones or social media platforms, leading individuals to make purchasing decisions, including the purchase of tech products like smartwatches (Hayran et al., 2020). People feeling FOMO tend to want to be envied, which leads to the desire to purchase products like smartwatches to show off their social status (Good and Hyman, 2020).

Overall, the interplay between the advanced functionalities of smartwatches and the tech-savvy nature of younger consumers has been a key factor in the rapid growth and widespread adoption of these wearable devices (Ramkumar and Liang, 2020). Researchers have used various theoretical models, including the Technology Acceptance Model and the Theory of Planned Behavior, to examine the factors influencing consumers' adoption of smartwatches. These studies emphasize the importance of perceived usefulness, perceived ease of use, and social influence in determining purchase intentions. However, there remains a crucial gap in the literature regarding the role of perceived value, particularly in terms of its hedonic (emotional and experiential) and utilitarian (functional and practical) dimensions, in influencing smartwatch purchasing behavior. While prior research has explored factors such as technology adoption and social influence, the impact of these specific perceived value dimensions, particularly within the context of a developing economy, has been largely overlooked. Moreover, the potential moderating role of the FOMO on the relationship between consumer attitudes and purchase intentions towards smartwatches has yet to be fully examined, especially in the case of premium brands like Samsung and Apple in a developing country.

Therefore, this study seeks to address these gaps by investigating how both hedonic and utilitarian perceived values shape young consumers' purchasing intentions for smartwatches in a developing economy context. Specifically, it examines the values that consumers seek in high-end smartwatch brands. The study also investigates whether the growing demand for these premium smartwatches is driven by a genuine need or a desire to maintain a trendy appearance, given that their prices are comparable to a month's pay in Mongolia. The researchers analyzed both hedonic and utilitarian values to understand if the purchase was motivated by the product's usefulness or the attention it garnered. Additionally, the study explored the moderating role of the fear of missing out on the relationship between consumer attitudes and purchase intentions towards smartwatches, as this perspective had not been previously investigated. The research has two primary goals: 1) to explore which perceived value, hedonic or utilitarian, has a greater impact on smartwatch buying intention; and 2) to analyze the moderating impact of the fear of missing out on the relationship between attitude and purchase intention. Through a comprehensive analysis, the study aims to offer valuable recommendations for smartwatch

manufacturers on how to effectively engage with potential customers and foster positive purchase intentions.

2. Literature review

2.1. Hedonic value

Hedonic value represents the multifaceted emotional and experiential benefits derived from consumption, transcending mere functional utility. This psychological construct encompasses experiences of enjoyment, entertainment, and pleasure, rather than task-oriented outcomes. Research indicates that hedonic value manifests through intrinsic, experiential, and emotional dimensions, often associated with intangible attributes of products. Empirical evidence suggests that hedonic value emerges when products or services facilitate knowledge acquisition, novelty-seeking behavior, and emotional gratification (Hur et al., 2012). In the field of technology, Liu et al. (2013) demonstrated a positive association between customers' perceived hedonic value and their platform satisfaction. The literature indicates that consumers extract pleasure, enjoyment, and indulgence from hedonic product attributes, which significantly influence their attitudes towards these offerings (Nida, 2023). Furthermore, research has established that hedonic value extends to social dimension enhancement, where consumers actively pursue trendy products and experiences that elevate their social status (Castellanos-Verdugo et al., 2016). Recent scholarship by Abel et al. (2023) investigated the interplay between hedonic value and FOMO, revealing that while both variables substantially impact consumer behavior, their interaction exhibits variability contingent upon individual consumer characteristics.

2.2. Utilitarian value

Utilitarian value derives from the functional, instrumental, and practical features of a product or service. Products that are high in utilitarian value are those that assist consumers in accomplishing their goals in an efficient and effective manner. Utilitarian value is based on the perceived utility or functionality of a product and is often associated with cognitive attitudes and rational decision-making (Hsu and Chen, 2018). The perceived usefulness of a product or service, based on its functional or physical features, has been characterized as utilitarian value. Historically, utilitarian value has been viewed as the primary driver of consumer decision-making, as it is associated with products or services that facilitate the achievement of practical objectives. Utilitarian value plays a significant role in consumer buying behavior. While the market has shifted towards offering devices with increased hedonic factors, catering to users' desires for pleasure and

enjoyment, the practical, functional aspects of products remain an important consideration for many consumers (Melumad et al., 2020). Recent studies have examined the interplay between utilitarian value, technology products, and FOMO in consumer behavior. For instance, research on bandwagon consumption behavior revealed that individuals with high FOMO levels are more likely to engage in bandwagon consumption, especially for luxury products. This suggests that FOMO can drive consumers towards products perceived as status-enhancing, even if they primarily serve utilitarian purposes. Similarly, studies on the impact of FOMO on purchasing behavior in e-commerce platforms highlight that FOMO significantly influences consumers' purchasing decisions, with both hedonic and utilitarian shopping values playing a role.

2.3. Attitude

Attitude refers to an individual's learned and persistent tendency to respond in a consistently positive or negative manner towards a particular product or service. Attitudes are shaped by past experiences and present behavior (Kim and Kim, 2014). Moreover, attitude is a key factor shaping consumers' willingness to adopt new technologies, as it reflects their positive or negative feelings about using a given product or service. Research demonstrates that consumers' attitudes toward specific brands, products, or services are shaped by their perceptions of hedonic and utilitarian value (Overby and Lee, 2006). Studies have found that a consumer's positive attitude toward using a technology, like a smartwatch, positively impacts their intention to purchase it. Ultimately, consumers' attitudes toward a technology are the primary determinants of their purchase intentions. This suggests that understanding and cultivating positive consumer attitudes is an important factor for the successful adoption and commercialization of new technologies in the marketplace (Chuah et al., 2016; Nga and Tam, 2024).

2.4. Fear of missing out

The psychological phenomenon known as FOMO is typified by extreme anxiety that people feel when they think they are missing out on pleasurable experiences in settings or circumstances when they are not present (Hayran et al., 2020). Many psychological and social factors are associated with the FOMO concept, such as low self-esteem (Dutot, 2020), high levels of social anxiety (Zhang et al., 2020), a strong need to fit in and be part of groups (Wang et al., 2019), an ongoing desire to stay in touch and connected with people (Beyens et al., 2016), concerns about missing out on important social interactions (Przybylski et al., 2013), and a pervasive fear of lagging behind peers or missing out on significant experiences (Good and Hyman, 2020). In an effort to get rid of the unfavorable emotions connected to FOMO, people also frequently copy the

actions and consumption patterns of others. For instance, individuals with higher FOMO levels are more likely to experience envy toward others' enjoyable experiences, which can consequently influence their own purchase decisions and behavior. Accordingly, individuals who experience FOMO may be more likely to conform to group norms in their purchasing decisions, as they may be tempted to acquire products that are popular within their social circle in order to avoid the perceived negative repercussions of being left out (Bläse et al., 2024). Recent research has explored the relationship between FOMO and wearable technology, particularly smartwatches. A qualitative user study investigated the applicability of the FOMO concept to wearables, examining how these devices might influence users' experiences of FOMO. The study found that specific features of wearables, such as constant connectivity and real-time notifications, can exacerbate feelings of FOMO among users. Additionally, research on smartwatch design qualities and user preferences has indicated that design elements promoting seamless connectivity and instant access to information appeal to individuals experiencing FOMO. These users are often drawn to devices that help them stay continuously informed and connected, potentially mitigating their fear of missing out.

2.5. Purchase intention

Purchase intention reflects a consumer's planned or intentional effort to buy a product or service in the future. Purchase intention is an attitudinal variable used to measure how much a customer is likely to contribute to a product in the future (Bläse et al., 2024). Moreover, it is the awareness of a consumer's desire to make a specific good or service a reality, leading to a subsequent actual purchase (Ganbold and Gantulga, 2023). Simply, purchase intention is a consumer's desire to choose, use, or acquire a product (Silalahi et al., 2022). In the business field, purchase intentions are defined as a combination of consumers' interest and their ability to buy a product. Purchase intention represents a consumer's conscious plan and desire to acquire a specific product or service, which can ultimately lead to an actual purchasing decision and behavior. This intention reflects the individual's readiness and willingness to engage in the buying process, stemming from their evaluation of the product's value, need, and relevance to their circumstances (Gantulga and Ganbold, 2022). Purchase intention is an important aspect not only for customers but for marketers as well, as it can help them predict future demand and develop strategies to influence consumer behavior (Tran, 2018). If customers have a positive attitude towards technology, they are more likely to buy it (Hsiao and Chen, 2018). It is a crucial factor that helps organizations understand consumer behavior and predict future sales trends more accurately. By studying the interplay between consumer attitudes and their purchase intentions,

businesses can develop more effective marketing strategies and allocate resources more efficiently (Redda, 2020).

Based on the theoretical background discussed above, we propose the following hypotheses (Fig. 1):

H1: Hedonic value significantly influences attitudes towards smartwatches.

H2: Utilitarian value significantly influences attitudes towards smartwatches.

H3: Attitudes towards smartwatches significantly influence purchase intentions.

H4: The consumer's FOMO moderates the relationship between attitude and purchase intention.

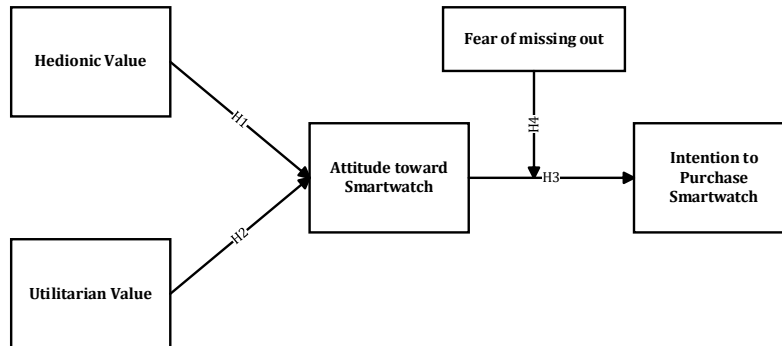


Fig.1: Research model

3. Methodology

3.1. Sample

The research adopted a quantitative approach by distributing a survey questionnaire to gather data from smartwatch users in Mongolia. The survey employed a random sampling method by distributing it through the Facebook social media pages of smartwatch stores. Only those who followed the store's page were able to complete the survey. The study also offered incentives to participants, which helped increase the response rate. This study included respondents aged 18 to 30 because the majority of smart gadget users were young (Chaffey and Ellis-Chadwick, 2022). Drawing upon prior academic literature, we created initial measurement items and questionnaires, which were then refined to suit the specific context of this investigation. Hair et al. (1998) recommended that the appropriate sampling size for a variance-based structural equation modeling (SEM) study should be between 300 and 500 participants. This guideline is based on the recommendation that the sample size should be large enough to provide reliable and stable estimates

of the model parameters and their associated standard errors. The survey was conducted between March to April 2024. The sample size of 300 participants is statistically adequate for the analyses conducted. The sample was drawn from a diverse demographic group, including different age ranges, income levels, and educational backgrounds, to ensure that it represents the wider population of smartwatch users in developing countries. Given the rapid adoption of smart devices in Mongolia, this sample is expected to provide valuable insights into consumer behavior in similar markets. Additionally, the study used self-reported data, which may introduce response bias. Participants may overestimate or underestimate their own behaviors and attitudes, and these factors may affect the validity of the data. The demographic variables of participants presented in Table 1 show that the participants were predominantly female (58.4%) and within the 18-25 age group (67%). Additionally, a significant portion of the participants had a monthly household income ranging from 1,000,000 to 2,000,000 MNT (43%) and held a bachelor's degree (78.6%).

Table 1: Demographic information of participants

| Variables | Data | Number | Percent |
|------------------------|---------------------|--------|---------|
| Gender | Men | 125 | 41.6% |
| | Women | 175 | 58.4% |
| Age | 18-25 | 201 | 67% |
| | 26-30 | 99 | 33% |
| Household income (MNT) | Up to 1,000,000 | 74 | 25.3% |
| | 1,000,001-2,000,000 | 129 | 43% |
| | 2,000,001-4,000,000 | 97 | 31.7% |
| Education | High school | 33 | 11% |
| | Undergraduate | 236 | 78.6% |
| | Graduate | 31 | 10.4% |

3.2. Measurements

The participants' comprehension of the questionnaire was pretested by the researchers before the study. Seven participants used the

measuring tool in a pilot test using smartwatches. Certain terms were reworded, and several items were removed following the pretest since the participants did not completely understand them. The survey instrument included multiple items

measuring perceived hedonic and utilitarian value, attitudes, purchase intentions, and FOMO using a 5-point Likert scale. The survey instrument included 20 items to measure perceived hedonic and utilitarian values, purchase intentions, FOMO, and demographic characteristics. The research model employs scales developed from concepts used in previous studies. Three items for utilitarian value from Lu et al. (2009), three items for hedonic value from Hsiao and Chen (2018), four items for FOMO from Hayran et al. (2020), and six items taken from Ali (2019) were used to assess attitude and purchase intention.

3.3. Data analysis procedure

The researchers analyzed the data using IBM SPSS 27 and SmartPLS 4 social science statistical software programs. Structural equation modeling

(SEM) has become a popular statistical tool in a variety of disciplines. Among the different structural equation modeling approaches, the partial least squares (PLS) method has gained significant attention due to its ability to handle complex models, non-normal data, and small sample sizes (Hair et al., 2014). Specifically, researchers utilized the SmartPLS 4 software for hypothesis testing purposes, while the SPSS software was employed to conduct descriptive analysis and data screening tasks. When the emphasis is on prediction and theory building, partial least squares (PLS) analysis is the favored approach since its statistical power is always greater than or equal to that of Covariance-Based Structural Equation Modeling (CBSEM) (Reinartz et al., 2009). This research investigated the stated hypotheses using structural model path coefficients at a significant level (Fig. 2).

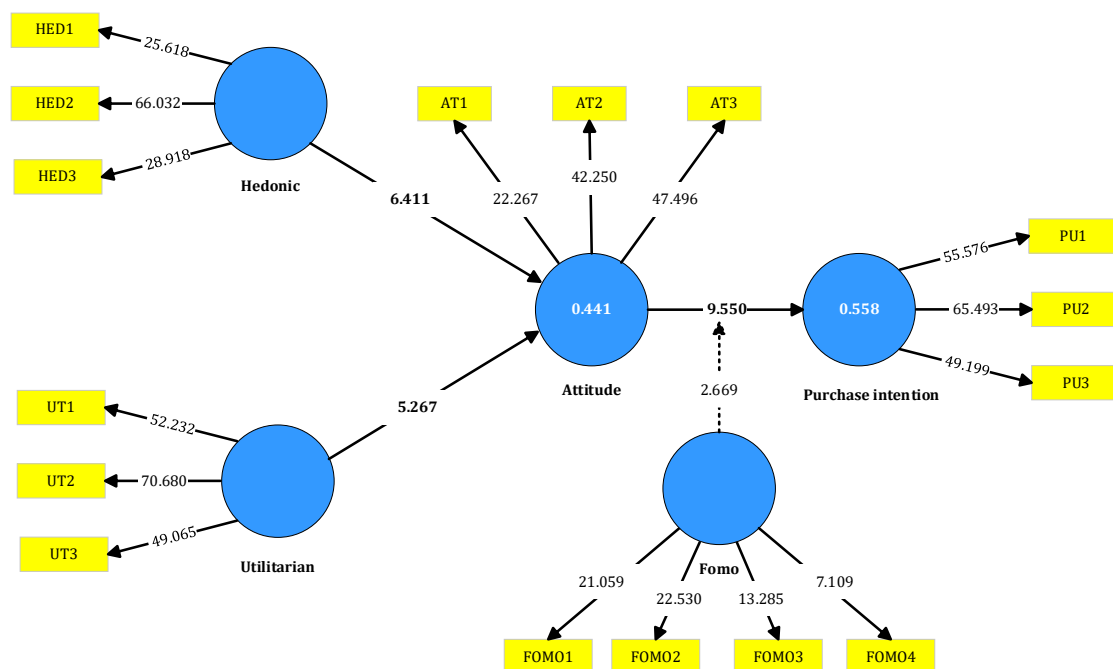


Fig. 2: SmartPLS t-test results

3.4. Measurement model

The study used a variety of statistical studies to determine the measurement model's reliability and validity. Composite reliability, a measure of internal consistency, was measured and found to exceed the suggested level of 0.80, with values ranging from 0.865 to 0.915. Furthermore, Cronbach's alpha, which measures a scale's internal consistency, was greater than the recommended 0.775, suggesting a high level of dependability. The results show the stability and consistency of the measures (Bulińska-Stangrecka and Bagińska, 2020). Furthermore, the

average variance retrieved, which represents the entire variation in the indicators accounted for by the latent construct, was much greater than the intended 0.50 threshold, indicating strong convergent validity (Saleh et al., 2018). Overall, the findings indicate that the study methodology is acceptable, and the measures are accurate and trustworthy, as demonstrated by Cronbach's alpha and composite reliability values of more than 0.70. Table 2 provides details on the measurement model results.

Table 2: The output of the measurement model

| Factors | Cronbach's alpha | CR | AVE | PU | ATT | HED | UTI | FO |
|--------------------|------------------|-------|-------|-------|-------|-------|------|------|
| Purchase decisions | 0.867 | 0.918 | 0.789 | 1.00 | | | | |
| Attitude | 0.768 | 0.865 | 0.682 | 0.678 | 1.00 | | | |
| Hedonic | 0.775 | 0.869 | 0.690 | 0.721 | 0.567 | 1.00 | | |
| Utilitarian | 0.863 | 0.917 | 0.785 | 0.801 | 0.622 | 0.671 | 1.00 | |
| FOMO | 0.778 | 0.886 | 0.598 | 0.813 | 0.812 | 0.543 | 0.78 | 1.00 |

3.5. Hypothesis testing

This research investigated the stated hypotheses using structural model path coefficients at a significant level. The path coefficients were found to be statistically significant based on the calculated t-statistics. As expected, hedonic value was positively associated with their attitude towards smartwatch ($\beta=0.374$, $t=6.411$, $p<.000$). Thus, the first hypothesis (H1) was accepted. The utilitarian value, or the practical and functional benefits, of smartwatches

was found to positively impact consumers' attitudes towards these devices ($\beta=0.346$, $t=5.267$, $p<.000$). Consequently, the second hypothesis (H2) was accepted. Furthermore, the research revealed that consumers' attitudes towards smartwatches had a positive and significant effect on their purchase intentions for smartwatches ($\beta=0.471$, $t=9.550$, $p<.000$). Therefore, the third hypothesis (H3) was also accepted (Table 3).

Table 3: Path coefficient results

| Dependent: Purchase intention | O | M | SD | T-statistics | P-value |
|-------------------------------|-------|-------|-------|--------------|---------|
| Attitude | 0.471 | 0.473 | 0.049 | 9.550 | .000*** |
| FOMO | 0.297 | 0.299 | 0.049 | 6.106 | .000*** |
| Hedonic | 0.374 | 0.376 | 0.058 | 6.411 | .000*** |
| Utilitarian | 0.346 | 0.345 | 0.066 | 5.267 | .000*** |
| R2 | | | | | 0.558 |
| R2 adjusted | | | | | 0.559 |

***: $p < 0.001$; O: Original sample; SD: Standard deviation; M: Sample mean

Moderator analysis in PLS-SEM can help researchers understand how the strength or direction of the relationship between two variables, such as attitude and purchase intention, may be influenced by a third variable. The second purpose of this research paper is to test the moderation effect of FOMO. This study utilized the bootstrapping procedure with 5,000 samples using the PROCESS developed by Hayes (2017). The study examined the role of FOMO in the relationships between attitude and purchase intention. Therefore, the researchers

aimed to investigate how FOMO moderates the relationship between attitude and purchase intention towards smartwatches. In order to examine the moderating role of FOMO, the product indicator approach was employed, which involved multiplying the attitude variable by the moderating variable of FOMO, as shown in Table 4. According to the research results, FOMO moderates the relationship between attitude and purchase intention. Therefore, the hypothesis H4 is supported.

Table 4: Moderation analysis results

| Paths | O | SD | T-statistics | P-value | Findings |
|-------------|-------|-------|--------------|---------|-----------|
| FOMO*ATT-PU | 0.107 | 0.040 | 2.669 | 0.008* | Moderated |

*: $p < 0.05$

Previous research has found that hedonic value, which refers to the perceived enjoyment and pleasure derived from using a product, is a significant predictor of purchase intention for various consumer products (Jung et al., 2020). However, the underlying mechanisms behind this relationship are not fully understood. Mediation analysis can help elucidate the role of attitude, which represents the consumer's overall evaluation and predisposition towards the product, in transmitting the effect of hedonic value on purchase intention.

Specifically, it is hypothesized that hedonic value may positively influence consumers' attitude towards smartwatches, which in turn may lead to higher purchase intention (Jung et al., 2020). This mediation model would suggest that the effect of hedonic value on purchase intention is not direct, but rather is mediated by the consumer's attitude towards the product (Table 5). Empirical studies have provided support for this mediation model in the context of various consumer products, including smart wearable technology (Kkonko et al., 2019).

Table 5: Mediation analysis results

| Paths | Original sample | SD | T-statistics | P-value | Results |
|------------|-----------------|-------|--------------|---------|--------------------|
| HED-ATT-PU | 0.176 | 0.037 | 4.787 | .000*** | Partially mediated |
| UTI-ATT-PU | 0.163 | 0.034 | 4.780 | .000*** | Partially mediated |

***: $p < 0.001$

4. Discussion

Our findings align with prior research indicating a strong link between FOMO and the adoption of wearable technologies, such as smartwatches. FOMO, characterized by a persistent concern of missing valuable experiences or information, has been shown to drive individuals toward technologies that facilitate constant connectivity and accessibility

(Elhai et al., 2020). This behavior is particularly evident in our sample, where participants cited the desire to stay informed and connected as key motivations for smartwatch adoption. Moreover, the moderation effect of FOMO on the attitude and purchase intention relationship adds a nuanced understanding of consumer behavior. Specifically, consumers with higher FOMO levels demonstrated a stronger relationship between their attitude toward

smartwatches and their intention to purchase. This finding aligns with [Bekman \(2022\)](#), who observed heightened FOMO among younger generations compared to older generations. Interestingly, the study found that hedonic and utilitarian values drive consumer purchase intentions, suggesting that the design or utility of a smartwatch plays an important role in determining purchase decisions ([Kkonko et al., 2019](#)). Consumer behavior in developing countries is heavily influenced by FOMO and socio-cultural factors. People in developing countries base their purchasing decisions on the appearance of a product rather than its functionality. This tendency to imitate the consumption patterns of consumers in other developed countries comes at the expense of conforming to global trends, sometimes at the expense of evaluating the actual benefits of the product or its suitability for individual needs. Based on the research findings, the following practical recommendations are provided to smartwatch manufacturers and marketers. First, emphasizing hedonic elements such as design and entertainment value could effectively attract consumers driven by enjoyment and pleasure. Second, ensuring robust utilitarian features like functionality and ease of use remains vital to appeal to pragmatic buyers. Lastly, marketing strategies targeting younger consumers and those in developing regions should consider leveraging FOMO-driven narratives to enhance purchase intention. By integrating these insights, this study contributes to the growing body of research on wearable technology adoption and also provides a broader understanding of the interplay between FOMO and wearable technology use. It allows actionable recommendations for industry stakeholders ([Hsiao and Chen, 2018](#); [Kkonko et al., 2019](#); [Dehghani, 2018](#)).

5. Conclusion and recommendation

The study of purchase intentions towards smartwatches is a multifaceted area that intersects consumer behavior, technology adoption, marketing strategies, and psychological factors. The outcomes of this study have several implications for researchers. First, the findings highlight the need to focus on enhancing both the hedonic and utilitarian value of smartwatches in order to drive consumer purchase decision. Product developers should strive to create smartwatches that are not only functional and useful but also provide an enjoyable and engaging user experience. Second, the study underscores the importance of product quality and design in shaping consumer attitudes and purchase intentions. Smartwatch manufacturers should invest in improving the overall quality and aesthetic appeal of their products in order to positively influence consumer perceptions and drive sales. Third, marketers may leverage FOMO-laden appeals to manipulate consumers' emotions and purchase decisions ([Dwisuardinata and Darma, 2023](#)). Mongolian consumers are gradually adopting a digital lifestyle, influenced by urbanization and

global trends. This change can be used as a symbol of modernity and connectivity in the smartwatch market. Furthermore, marketers should use Mongolian social media influencers to showcase smartwatches in aspirational settings, such as fitness, fashion, or professional use, amplifying FOMO among followers. Moreover, marketers should promote a limited-edition smartwatch for a short time. Mongolian consumers, like others, may respond to urgency and exclusivity.

Researchers in this field should focus on consumer motivational factors: Investigate the intrinsic and extrinsic motivational factors influencing consumers' decisions to purchase smartwatches. This could include health consciousness, technological enthusiasm, social influence, and convenience. Also, researchers should find out how technological factors affect consumer purchase intention towards smartwatches. More specifically, to identify which smartwatch features (e.g., fitness tracking, notifications, battery life) are most valued by consumers and how these preferences influence purchase decisions, and to explore the role of perceived innovation and technological advancements in shaping consumer interest and willingness to purchase smartwatches. Furthermore, researchers should assess the impact of brand reputation and loyalty on consumer purchase intention. This could involve comparing the market performance of leading brands like Apple, Samsung, and Fitbit. Finally, future researchers should examine how different pricing strategies (e.g., premium pricing, discounts, bundling) affect consumer purchase intention towards smartwatches. Last but not least, researchers should consider cultural and economic factors as moderator variables. These factors may shape the relationships between key variables in ways that are influenced by the broader social, cultural, and economic contexts in which individuals or groups operate. By considering these dimensions, researchers can gain a more nuanced understanding of the phenomena under study and identify underlying mechanisms that may vary across different settings.

List of abbreviations

| | |
|-------|---|
| FOMO | Fear of missing out |
| SPSS | Statistical package for the social sciences |
| SEM | Structural equation modeling |
| PLS | Partial least squares |
| CBSEM | Covariance-based structural equation modeling |
| AVE | Average variance extracted |
| CR | Composite reliability |
| PU | Purchase decisions |
| ATT | Attitude |
| HED | Hedonic value |
| UTI | Utilitarian value |
| Fo | Fear of missing out (alternate label) |
| MNT | Mongolian Tögrög |
| O | Original sample |
| SD | Standard deviation |
| M | Sample mean |

Compliance with ethical standards

Ethical considerations

The authors confirm that participation in the survey was voluntary and anonymous, and all participants provided informed consent. The study was conducted in accordance with the ethical standards of social science research.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

- Alfina, Hartini S, and Mardhiyah D (2023). FOMO related consumer behaviour in marketing context: A systematic literature review. *Cogent Business and Management*, 10(3): 2250033. <https://doi.org/10.1080/23311975.2023.2250033>
- Ali H (2019). Building repurchase intention and purchase decision: Brand awareness and brand loyalty analysis (case study private label product in Alfamidi Tangerang). *Saudi Journal of Humanities and Social Sciences*, 4(9): 623-634. <https://doi.org/10.36348/SJHSS.2019.v04i09.009>
- Bekman M (2022). The effect of FOMO (fear of missing out) on purchasing behavior in public relations practices. *Selçuk İletişim*, 15(2): 528-557. <https://doi.org/10.18094/josc.1116808>
- Beyens I, Frison E, and Eggermont S (2016). "I don't want to miss a thing": Adolescents' fear of missing out and its relationship to adolescents' social needs, Facebook use, and Facebook related stress. *Computers in Human Behavior*, 64: 1-8. <https://doi.org/10.1016/j.chb.2016.05.083>
- Bläse R, Filser M, Kraus S, Puumalainen K, and Moog P (2024). Non-sustainable buying behavior: How the fear of missing out drives purchase intentions in the fast fashion industry. *Business Strategy and the Environment*, 33(2): 626-641. <https://doi.org/10.1002/bse.3509>
- Bulińska-Stangrecka H and Bagieńska A (2020). Intangible resources for an organization's sustainability potential. *Entrepreneurship and Sustainability Issues*, 8(1): 741-761. [https://doi.org/10.9770/jesi.2020.8.1\(50\)](https://doi.org/10.9770/jesi.2020.8.1(50)) **PMCID:PMC2983660**
- Castellanos-Verdugo M, Vega-Vázquez M, Oviedo-García MÁ, and Orgaz-Agüera F (2016). The relevance of psychological factors in the ecotourist experience satisfaction through ecotourist site perceived value. *Journal of Cleaner Production*, 124: 226-235. <https://doi.org/10.1016/j.jclepro.2016.02.126>
- Chaffey D and Ellis-Chadwick F (2022). *Digital marketing*. 8th Edition, Pearson, London, UK. <https://doi.org/10.4324/9781003009498-10>
- Choi J and Kim S (2016). Is the smartwatch an IT product or a fashion product? A study on factors affecting the intention to use smartwatches. *Computers in Human Behavior*, 63: 777-786. <https://doi.org/10.1016/j.chb.2016.06.007>
- Chuah SHW, Rauschnabel PA, Krey N, Nguyen B, Ramayah T, and Lade S (2016). Wearable technologies: The role of usefulness and visibility in smartwatch adoption. *Computers in Human Behavior*, 65: 276-284. <https://doi.org/10.1016/j.chb.2016.07.047>
- Cui S, Jiang J, and Mu L (2024). The relationship between loneliness and the overuse of WeChat among Chinese elderly: The chain mediation role of sensation seeking and fear of missing out. *Psychology Research and Behavior Management*, 17: 3067-3081. <https://doi.org/10.2147/PRBM.S467221> **PMid:39220632 PMCID:PMC11363962**
- Dehghani M (2018). Exploring the motivational factors on continuous usage intention of smartwatches among actual users. *Behaviour and Information Technology*, 37(2): 145-158. <https://doi.org/10.1080/0144929X.2018.1424246>
- Dehghani M and Kim KJ (2019). The effects of design, size, and uniqueness of smartwatches: Perspectives from current versus potential users. *Behaviour and Information Technology*, 38(11): 1143-1153. <https://doi.org/10.1080/0144929X.2019.1571111>
- Dutot V (2020). A social identity perspective of social media's impact on satisfaction with life. *Psychology and Marketing*, 37(6): 759-772. <https://doi.org/10.1002/mar.21333>
- Dwisuardinata IBN and Darma GS (2023). The impact of social influence, product knowledge, and fear of missing out (FOMO) towards purchase intention on alcoholic beverage in Bali. *Binus Business Review*, 14(1): 1-11. <https://doi.org/10.21512/bbr.v14i1.8919>
- Elhai JD, Yang H, Rozgonjuk D, and Montag C (2020). Using machine learning to model problematic smartphone use severity: The significant role of fear of missing out. *Addictive Behaviors*, 103: 106261. <https://doi.org/10.1016/j.addbeh.2019.106261> **PMid:31901886**
- Ganbold M and Gantulga U (2023). Consumer's personal and social factors on purchase intentions of counterfeit luxury products. *Jurnal Ilmiah Peuradeun*, 11(3): 1091-1114. <https://doi.org/10.26811/peuradeun.v11i3.926>
- Gantulga U and Ganbold M (2022). Factors influencing foreign products purchase intention of Mongolian consumers. *Asia Marketing Journal*, 24(3): 131-140. <https://doi.org/10.53728/2765-6500.1594>
- Good MC and Hyman MR (2020). 'Fear of missing out': Antecedents and influence on purchase likelihood. *Journal of Marketing Theory and Practice*, 28(3): 330-341. <https://doi.org/10.1080/10696679.2020.1766359>
- Hair Jr JF, Anderson RE, Tatham RL, and Black WC (1998). *Multivariate data analysis*. 5th Edition, Prentice Hall, Upper Saddle River, USA.
- Hair Jr JF, Sarstedt M, Hopkins L, and Kuppelwieser VG (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2): 106-121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Hayes AF (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications, New York, USA.
- Hayran C, Anik L, and Gürhan-Canlı Z (2020). A threat to loyalty: Fear of missing out (FOMO) leads to reluctance to repeat current experiences. *PLOS ONE*, 15(4): e0232318. <https://doi.org/10.1371/journal.pone.0232318> **PMid:32353059 PMCID:PMC7192437**
- Hsiao KL and Chen CC (2018). What drives smartwatch purchase intention? Perspectives from hardware, software, design, and value. *Telematics and Informatics*, 35(1): 103-113. <https://doi.org/10.1016/j.tele.2017.10.002>
- Hsu CL and Chen MC (2018). How gamification marketing activities motivate desirable consumer behaviors: Focusing on the role of brand love. *Computers in Human Behavior*, 88: 121-133. <https://doi.org/10.1016/j.chb.2018.06.037>
- Hsu HY and Wang SK (2019). Using ICTs and mobile devices to assist adult English-language learning: An e-portfolio-based learning approach. In: Khadimally S (Ed.), *Technology-assisted ESL acquisition and development for nontraditional learners*: 133-161. IGI Global, Pennsylvania, USA. <https://doi.org/10.4018/978-1-5225-3223-1.ch006>

- Hur WM, Yoo JJ, and Chung TL (2012). The consumption values and consumer innovativeness on convergence products. *Industrial Management and Data Systems*, 112(5): 688-706. <https://doi.org/10.1108/02635571211232271>
- Jung HJ, Choi YJ, and Oh KW (2020). Influencing factors of Chinese consumers' purchase intention to sustainable apparel products: Exploring consumer "attitude-behavioral intention" gap. *Sustainability*, 12(5): 1770. <https://doi.org/10.3390/su12051770>
- Kim JY and Kim SY (2014). The effect of perceived risk, hedonic value, and self-construal on attitude toward mobile SNS. *Asia Marketing Journal*, 16(1): 149-168. <https://doi.org/10.53728/2765-6500.1532>
- Kkonko EK, Chilya N, Chuchu T, and Nodoro T (2019). An investigation into the factors influencing the purchase intentions of smart wearable technology by students. *International Journal of Interactive Mobile Technologies*, 13(5): 15-29. <https://doi.org/10.3991/ijim.v13i05.10255>
- Kuerbis A, van Stolk-Cooke K, and Muench F (2017). An exploratory study of mobile messaging preferences by age: Middle-aged and older adults compared to younger adults. *Journal of Rehabilitation and Assistive Technologies Engineering*, 4: 1-10. <https://doi.org/10.1177/2055668317733257>
PMid:30533217 PMCid:PMC6284808
- Liu Y, Li H, and Hu F (2013). Website attributes in urging online impulse purchase: An empirical investigation on consumer perceptions. *Decision Support Systems*, 55: 829-837. <https://doi.org/10.1016/j.dss.2013.04.001>
- Lu Y, Zhou T, and Wang B (2009). Exploring Chinese users' acceptance of instant messaging using the theory of planned behavior, the technology acceptance model, and the flow theory. *Computers in Human Behavior*, 25(1): 29-39. <https://doi.org/10.1016/j.chb.2008.06.002>
- Melumad S, Hadi R, Hildebrand C, and Ward AF (2020). Technology-augmented choice: How digital innovations are transforming consumer decision processes. *Customer Needs and Solutions*, 7: 90-101. <https://doi.org/10.1007/s40547-020-00107-4>
- Nga LP and Tam PT (2024). Key factors affecting online shopping attitude and intention: A case study of consumers in Vietnam. *Journal of Eastern European and Central Asian Research*, 11(1): 66-78. <https://doi.org/10.15549/jecar.v11i1.1547>
- Nida NAH (2023). The effect of hedonic value and utilitarian value on buying interest with consumer attitudes as mediation. *Jurnal Economic Resource*, 6(2): 248-258. <https://doi.org/10.57178/jer.v6i2.665>
- Overby JW and Lee EJ (2006). The effects of utilitarian and hedonic online shopping value on consumer preference and intentions. *Journal of Business Research*, 59(10-11): 1160-1166. <https://doi.org/10.1016/j.jbusres.2006.03.008>
- Przybylski AK, Murayama K, DeHaan CR, and Gladwell V (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, 29(4): 1841-1848. <https://doi.org/10.1016/j.chb.2013.02.014>
- Ramkumar B and Liang Y (2020). How do smartwatch price and brand awareness drive consumer perceptions and purchase intention? A perceived value approach. *International Journal of Technology Marketing*, 14(2): 154-180. <https://doi.org/10.1504/IJTMKT.2020.110126>
- Redda EH (2020). The influence of utilitarian and hedonic consumption values on consumer attitude towards online shopping and purchasing intentions. *Journal of Reviews on Global Economics*, 9: 331-342. <https://doi.org/10.6000/1929-7092.2020.09.32>
- Reinartz W, Haenlein M, and Henseler J (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of Research in Marketing*, 26(4): 332-344. <https://doi.org/10.1016/j.ijresmar.2009.08.001>
- Saleh AA, Haron SN, Ahmad NA, and Ali NE (2018). Measurement model of critical success factors for energy management in Malaysian university. *Malaysian Journal of Sustainable Environment*, 5(2): 55-74. <https://doi.org/10.24191/myse.v5i2.5617>
- Silalahi IV, Hurriyati R, Rahayu A, Gaffar V, Adi Wibowo L, Dewi Dirgantari P, and Warlina L (2022). Digital way to increase consumer purchase intention for local fashion products in developing country. *Journal of Eastern European and Central Asian Research*, 9(5): 838-850. <https://doi.org/10.15549/jecar.v9i5.1070>
- Solaiman S and Pangaribuan CH (2024). The influence of hedonic motivation and influencer marketing on purchasing decisions with FOMO (fear of missing out) as a mediating variable (empirical study: Cupika online store customers). *International Journal of Economics*, 3(2): 906-918. <https://doi.org/10.55299/ijec.v3i2.1006>
- Tran TT (2018). Factors affecting the purchase and repurchase intention smart-phones of Vietnamese staff. *International Journal of Advanced and Applied Sciences*, 5(3): 107-119. <https://doi.org/10.21833/ijaas.2018.03.015>
- Wang P, Wang X, Nie J, Zeng P, Liu K, Wang J, Guo J, and Lei L (2019). Envy and problematic smartphone use: The mediating role of FOMO and the moderating role of student-student relationship. *Personality and Individual Differences*, 146: 136-142. <https://doi.org/10.1016/j.paid.2019.04.013>
- Zhang Z, Jiménez FR, and Cicala JE (2020). Fear of missing out scale: A self-concept perspective. *Psychology and Marketing*, 37(11): 1619-1634. <https://doi.org/10.1002/mar.21406>